

PNNL's Integrated ES&H Program

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- \$760 million business volume
- >4,000 staff

PNNL's Strategy:

Delivering science, technologies, and leadership to....

Mission outcome

Examples

Strengthen U.S. scientific foundations for innovation

Biomarkers to detect early-stage environmental and health problems



Increase U.S. energy capacity and reduce dependence on imported oil

Converting hydrocarbons to fuels



Prevent and counter acts of terrorism and the proliferation of weapons of mass destruction

Detecting nuclear and radiological materials at borders, ports

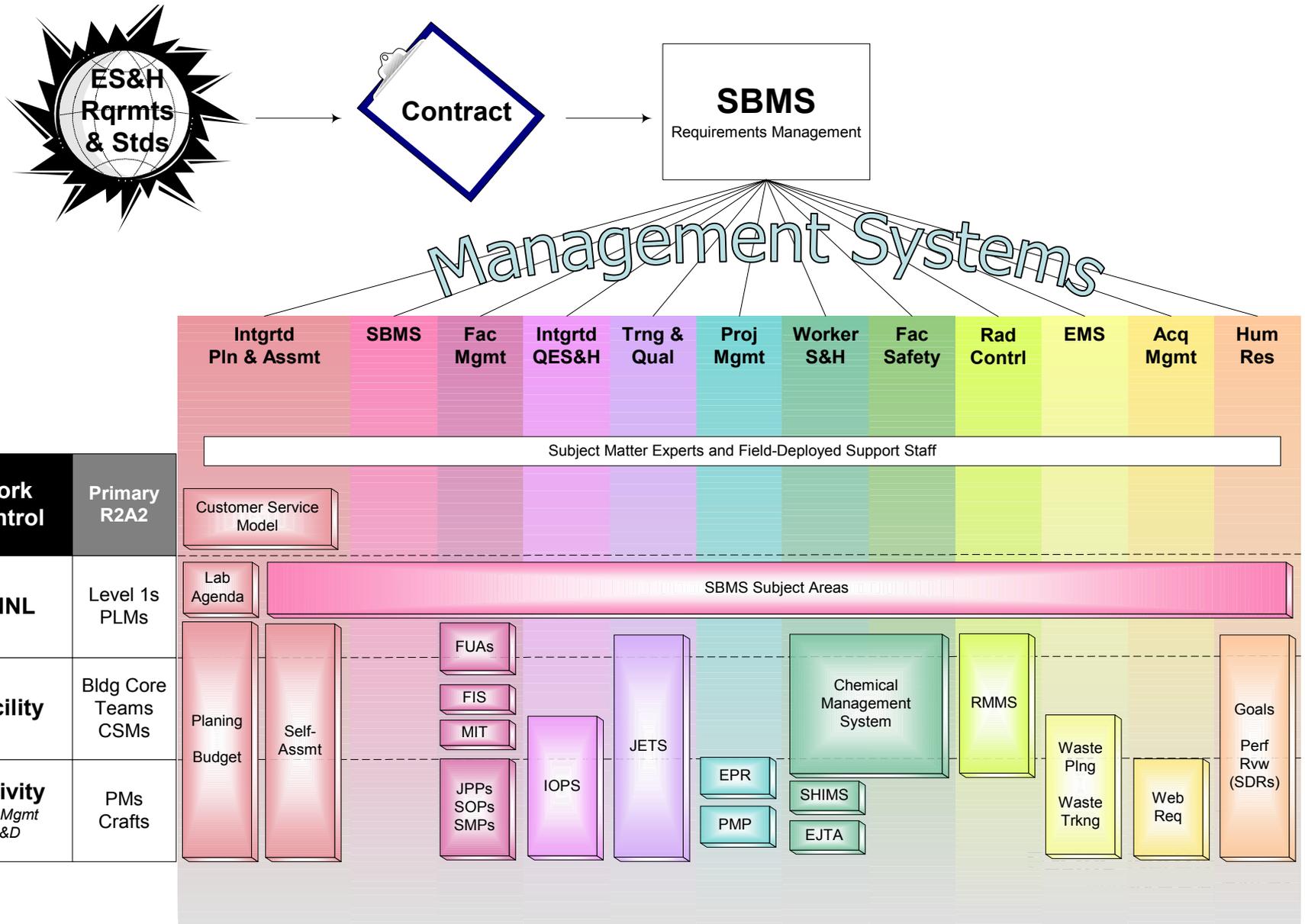


Reduce environmental effects of human activity and create sustainable systems

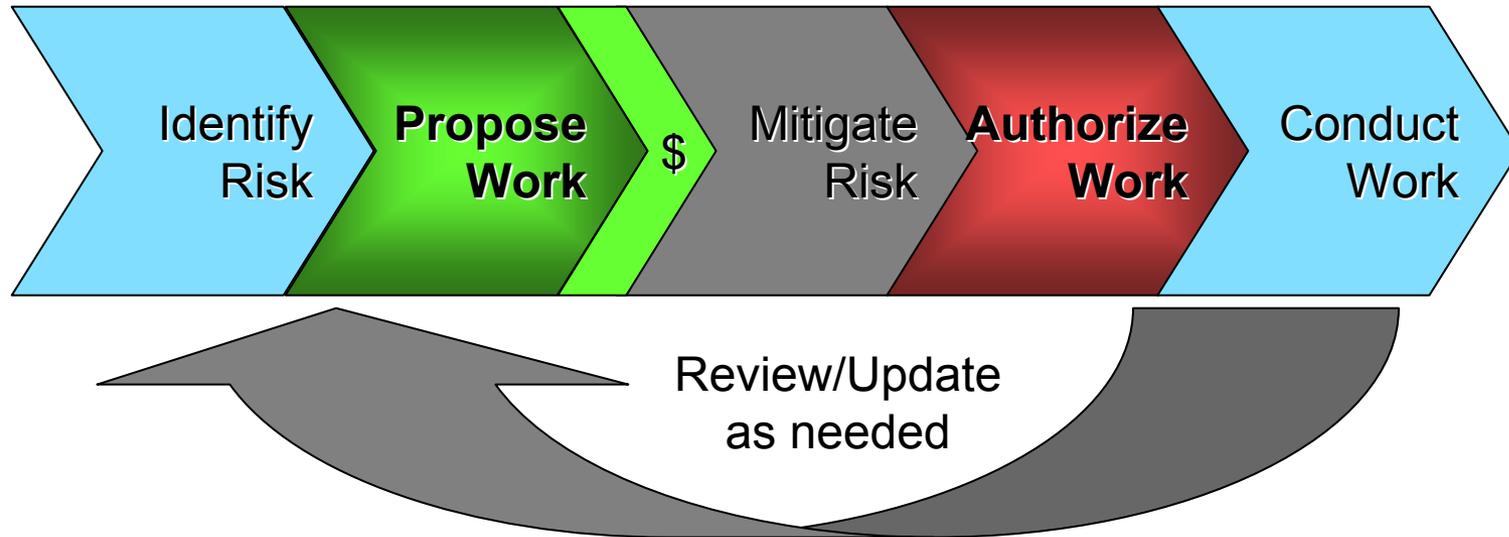
Preventing and reducing contaminants in water supplies



SBMS-based systems and tools work together to give PNNL Integrated ES&H Management



Project Risk Management Process



Value Proposition

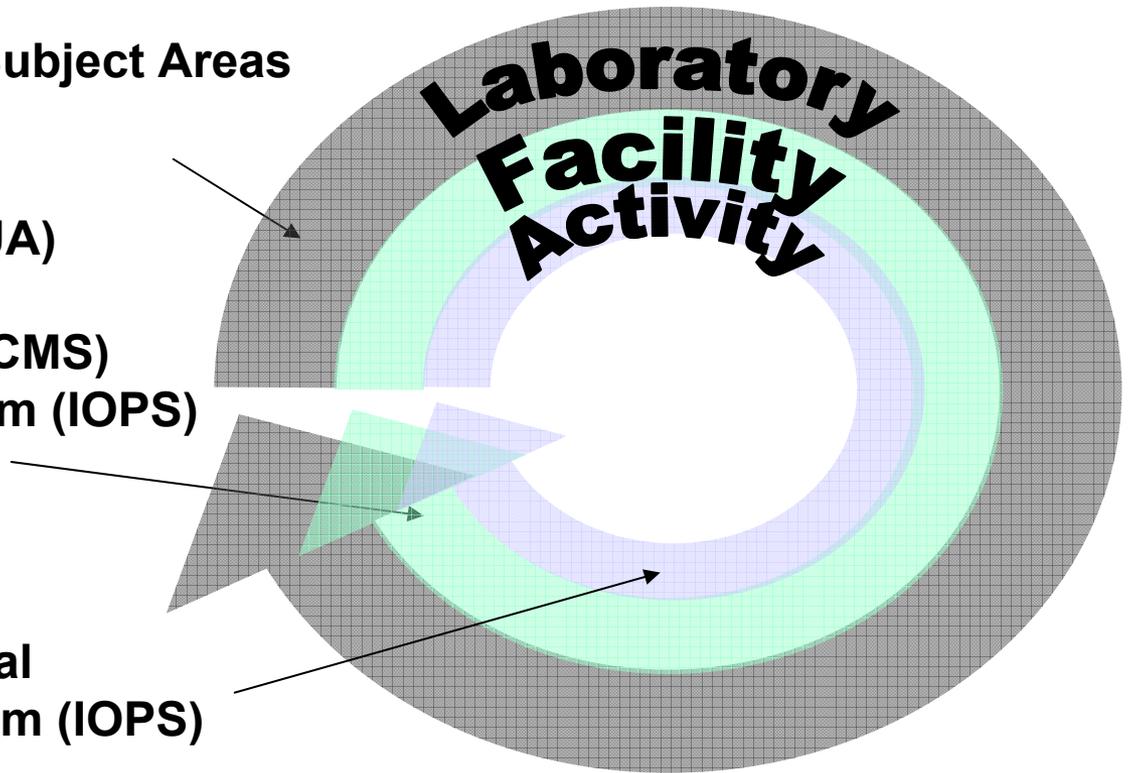
- EPR helps with **risk identification and verification** that proposed work is within an approved operating envelope – Risk Mitigation Permit (based on SBMS & IOPS)
- EPR secures **Project Startup Authorization** from PLM
- EPR delivers a **Risk Mitigation Permit** to the PLM, PM, and IOPS/CSM based on SBMS, IOPS
- EPR & IOPS provide a process to **monitor project operational risks for changes** and provide feedback to risk mitigation planning and closeout

Integrated ES&H Management Tools

**Electronic Prep and Risk
Management Systems and Subject Areas**

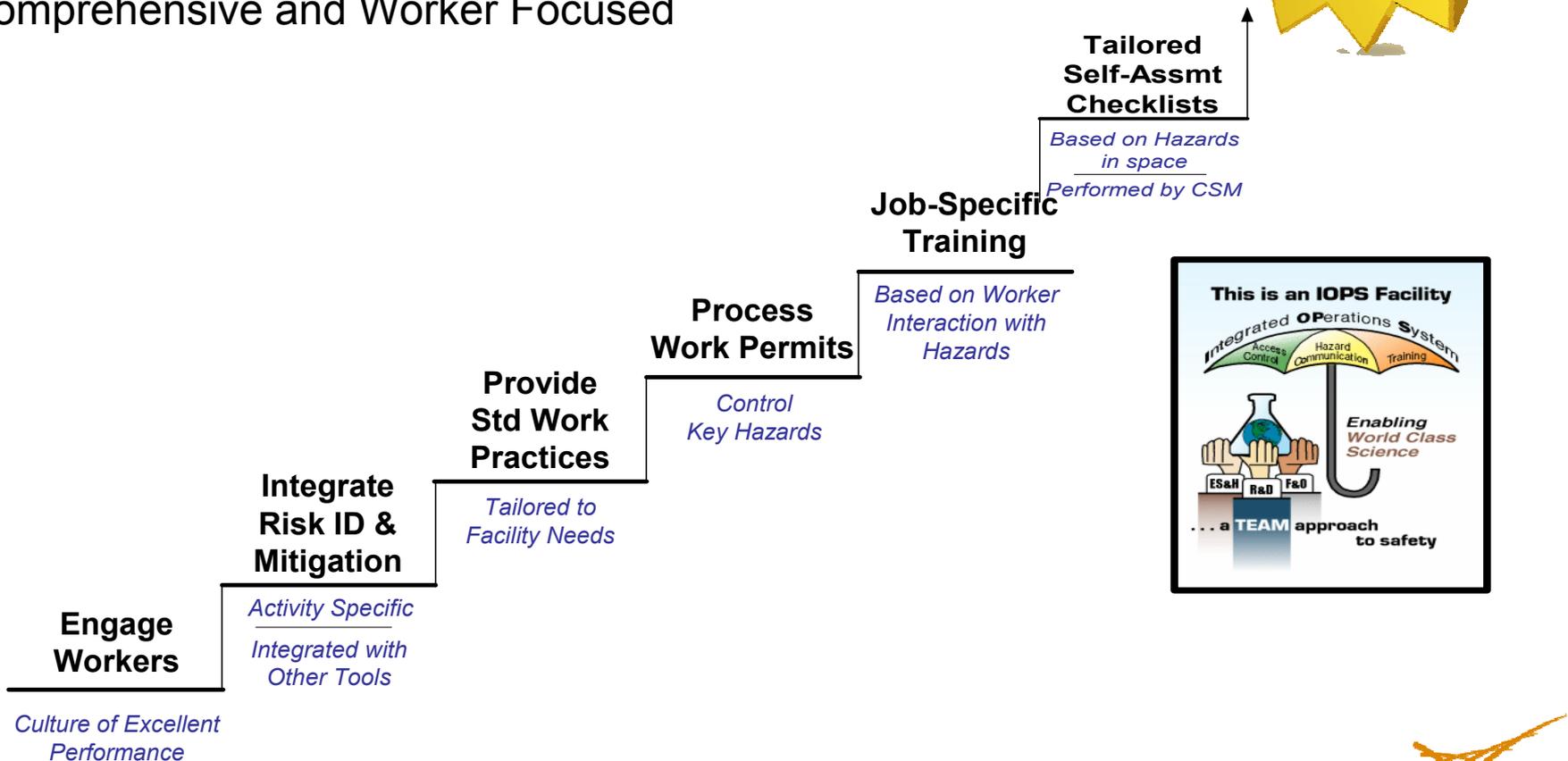
**Facility Use Agreements (FUA)
Map Information Tool
Asset Tracking Tools (RMT/CMS)
Integrated Operations System (IOPS)**

**Activity Review and Approval
Integrated Operations System (IOPS)**



IOPS – Space Focused

IOPS is effective because it is
Comprehensive and Worker Focused



Crosswalk of ESH&Q

	Quality	Integrated Safety Management		Environmental Management
		Core Function	Guiding Principle	
Plan	Management/ Program	CF1 – Define the scope of work	GP4 – Balanced Priorities	4.1 Scope of EMS
	Management/ Training & Qualification	CF2 – Identify and analyze hazards associated with the work	GP5 – Identification of safety standards and requirements	4.2 Environmental Policy
	Performance/ Design			4.3.1 Environmental Aspects
	Performance/ Procurement			4.3.2 Legal & other requirements
	Do (perform)	Management/ Documents	CF4 – Perform work within controls	GP7 – Operations authorization
Performance/ Work Processes		4.4.7 Emergency preparedness & response		
				4.4.6 Operational Controls
				4.4.4 Documentation
Check (assess)	Performance/ Acceptance & Testing	CF5 – Provide feedback on adequacy of controls & continue to improve safety management		4.4.5 Control of Documents
	Assessment/Management Assmt			4.5.4 Control of Records
	Assessment/Independent Assmt			4.5.1 Monitoring & Measurement
Act (improve)	Quality Improvement			4.5.2 Evaluation of Compliance
				4.5.3 Nonconformity, correction action & preventive action
				4.5.5 Internal Audit
				4.6 Management Review
			GP1 – Line management responsibility for safety	4.4.1 Resources, roles, responsibility, and authority
			GP2 – Clear roles and responsibilities	4.4.3 Communication (internal & external)
			GP3- Competence commensurate with	4.4.2 Competence, training, and awareness

Any questions?



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